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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/682,132

10/09/2003

Gerald Keith Bartley

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1341

7590

04/06/2005

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EXAMINER

KOBERT, RUSSELL MARC

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/682,132	BARTLEY ET AL.	
	Examiner	Art Unit	
	Russell M. Kobert	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1003</u> . | 6) <input type="checkbox"/> Other: _____  |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 7, 8-10, 12 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller et al (6603323).

Miller et al anticipates an apparatus (Figures 7 and 13-18) for implementing multiple signals probing of a printed circuit board (col 5, ln 54 - col 6, ln 33) comprising:

a probe structure (80 and 72) formed on an outside surface of the printed circuit board (68);

a resistor (78 or 172) electrically connected with a predefined via (174) associated with a signal to be monitored, and

a path (Bus Nodes 76, Busses 91-97, Pads 81-87; or Figure 17, vias 166 to Figure 16, traces 168 to vias 166, 170 to Figure 15, vias 166 to traces 164 to vias 162 to Figure 14, traces 160 to pads 158; see column 10, ln 24-56) defined to a predefined probe location for monitoring said signal from said resistor using said probe structure (80 and 72); as recited in claim 9.

As to claim 10, having a pattern of a plurality of spaced apart stubs (80 and 72) defining the probe structure on the outside surface of the printed circuit board (68), each stub including an elongated portion extending from at least one pad is anticipated by Miller et al.

As to claim 12, removing the resistor from the path after testing is considered a normal operation of the apparatus shown in Miller et al because Miller et al uses spring contacts (72) to contact I/O pads 74 of lcs (62) on Wafer (64) wherein the function of spring probes permits movement of the Interconnect System (66) toward and away (separation resulting in removal of the resistor and path from the device under test) from a device under test such as a wafer.

As to claim 15, having the resistor selected from a high resistance value relative to a characteristic impedance of the printed circuit board is considered inherent to Miller et al because Miller et al teaches the use of isolation resistors (1000 ohms) that is greater than the 50 ohm lossy transmission segments (col 3, ln 25-39).

As to the methods described in claims 1, 2, 7 and 8, the processes are considered the inherent method of using the apparatus described in claims 9, 10, 12 and 15 respectively.

3. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Rutten (6747469); (see Figures 6A, 6B and col 5, ln 39-43, col 6, ln 11-29).

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4. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wiscombe et al (5014002).

5. A shortened statutory period for response to this action is set to expire three month(s) from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963. The Examiner's Supervisor, Nestor R. Ramirez, can be reached at (571) 272-2034. For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert  
Patent Examiner  
Group Art Unit 2829  
March 31, 2005



VINH NGUYEN  
PRIMARY EXAMINER

A.U. 2829

04/01/05